

**LAND SURVEYOR**  
**SENIOR LAND SURVEYOR**  
**PRINCIPAL LAND SURVEYOR**

**Class No. 003785**  
**Class No. 003728**  
**Class No. 003705**

**DEFINITION:**

To supervise, coordinate, and perform professional land survey work and engineering survey office work.

**DISTINGUISHING CHARACTERISTICS:**

**Land Surveyor:** This is the journey level class in the Land Surveyor series. Under direction, Land Surveyors are licensed professional land surveyors, or engineers, performing complex surveys and engineering projects. As project surveyors, incumbents lead groups of professionals and supervise technical staff performing a wide variety of surveying and engineering projects or programs.

**Senior Land Surveyor:** This is the lead/supervisory level class in the Land Surveyor series. Under direction, a Senior Land Surveyor is responsible for handling highly visible and sensitive projects and for supervising subordinate staff within a major technical and specialized land survey unit.

**Principal Land Surveyor:** This is the management level class in the Land Surveyor series. Under administrative direction, the Principal Land Surveyor reports to the Deputy Director, Public Works and is responsible for planning, directing, and coordinating all land surveying and engineering projects and programs and for supervising subordinate Land Surveyors.

**EXAMPLES OF DUTIES:**

Field duties: as project leader, assigns and trains the work of subordinate professional and technical staff; acts as special projects leader in conducting a variety of engineering and land surveys; establishes procedures, techniques and selects instrumentation for determinations involving location of points, control lines, boundary lines and areas; prepares and reviews preliminary studies, calculations, cost estimates, specifications and reports consisting of engineering, construction, design, topographic, photogrammetric, geodetic, hydrographic, property and right of way surveys.

Office duties: as project leader, assigns and trains the work of staff preparing technical data and calculations to be used in the office or field by engineers, technicians and managers; reviews and checks surveyors and engineers' work and reports involving engineering and land surveying projects; reviews the preparation and processing of Records of Surveys, Parcel and Subdivision Maps, photogrammetric surveys, uniform base mapping service and applicable computer graphics; coordinates the preparation of drawings, maps, plots and legal descriptions; and prepares technical correspondence and reports.

**Senior Land Surveyor:**

Reviews and determines procedures and techniques for conducting hydrographic, property, and right-of-way surveys, and the establishment of an effective uniform base mapping system; directs the preparation and review of ordinances, drawings, maps, plats and legal descriptions for right-of-way acquisitions; and provides consultation to outside agency representatives on land surveying and title matters; and may plan, direct, coordinate, assign, train, and review the work of land surveyors, engineers, and technicians engaged in the preparation and performance of studies, analyses, calculations, cost estimates, specifications and reports relative to any one of a variety of right-of-way and land surveys.

**Principal Land Surveyor:**

Plans, directs, coordinates, assigns, schedules, trains, and evaluates the work of subordinate land surveyors, engineers and technicians performing surveying work; directs staff in the preparation of studies, cost estimates, specifications and reports involving engineering construction and photogrammetric surveys, mapping services and all applicable computer graphics; directs and reviews the preparation of maps, plats and legal descriptions; coordinates engineering land surveys and mapping projects with governmental agencies, special districts, County management, private industry and the general public; provides technical consultation on information as required.

### **MINIMUM QUALIFICATIONS:**

Knowledge Level: T = Thorough; G = General; -- = Not Applicable

Classification Level: L = Land Surveyor  
S = Senior Land Surveyor  
P = Principal Land Surveyor

### **Knowledge of:**

<b><u>L</u></b>	<b><u>S</u></b>	<b><u>P</u></b>	
T	T	T	Engineering land survey theory and practices of design, planning, construction, right-of-way and land acquisition.
T	T	T	Land surveying techniques including property, geodetic, photogrammetric, construction, right-of-way, and engineering surveys.
T	T	T	Procedures and techniques of mapping and subdivision map processing.
T	T	T	Operation and use of mapping equipment relating to land and photogrammetric surveying.
T	T	T	The Subdivision Map Act, Land Surveyors Act, and Local Ordinances as they relate to surveying and the preparation of Subdivision, Parcel and Record of Survey Maps.
T	T	T	Uniform base mapping systems, procedures, and equipment.
T	T	T	Civil Engineering theory as applicable to land surveying practice and techniques.
G	G	T	Supervision and training principles and techniques.
G	G	T	Organization and operation of private firms engaged in land surveying and civil engineering services and facilities.
G	G	T	Principles of cost accounting, budgeting, cost control and analysis, and engineering economics.
--	G	G	The General Management System in principle and in practice.

### **Skills and Abilities to:**

The following apply to all classes:

- Prepare and review preliminary studies, final maps and plans, detailed calculations, cost estimates, and specifications.
- Prepare and review the work of staff involved in performing engineering, construction and photogrammetric surveys, uniform base mapping systems, and title reports.
- Prepare maps and legal documents and evaluate them to determine ownership and title encumbrances.
- Meet and consult with government, public and private officials.
- Prepare maps and legal documents.
- Evaluate deeds, maps and other instruments to determine ownership and title incumbencies.
- Supervise subordinate staff performing a wide variety of surveying and engineering projects or programs.

### **Senior Land Surveyor (in addition to the above):**

- Review and develop procedures and techniques for conducting hydrographic, property, and right-of-way surveys, and the establishment of an effective uniform base mapping system.
- Direct the preparation and review of ordinances, drawings, maps, plats and legal descriptions for right-of-way

- acquisitions.
- Provide consultation to outside agencies on land surveying and title matters.
- May supervise a unit comprised of land surveyors, engineers, and technicians.

**Principal Land Surveyor (in addition to the above):**

- Plan, direct, coordinate, assign, schedule, train, and review the work of a large section composed of land surveyors, engineers and technicians.
- Apply principles of cost/benefit analysis to determine the economic feasibility of surveying programs and projects.

**EDUCATION/EXPERIENCE:**

Education, training, and/or experience which clearly demonstrates possession of the knowledge, skills and abilities listed above. Examples of qualifying education/experience are:

**Land Surveyor:**

1. Registration as a licensed Land Surveyor (Business and Professions Code, Section 8725), OR,
2. Registration as a Civil Engineer with the California State Board of Registration for Professional Engineers, with the authority to practice land surveying work (Business and Professions Code, Section 8731).

**Senior Land Surveyor:**

1. Registration by the State of California as a licensed professional Land Surveyor or Civil Engineer; AND, two (2) years of post-registration experience performing professional land surveying work; OR,
2. Two (2) years of experience as a land Surveyor with the County of San Diego.

**Note:** Supervisory experience in planning, directing, coordinating, and evaluating the work of subordinate professional licensed land surveyors is highly desirable.

**Principal Land Surveyor:**

Registration by the State of California as a licensed professional Land Surveyor or Civil Engineer; AND, five (5) years of post-registration experience performing professional land surveying work. Previous experience must have included two (2) years in planning, directing, coordinating, and evaluating the work of subordinate professional licensed land surveyors who have performed: 1) field AND office surveying work; and, 2) final subdivision and parcel map processing.

**SPECIAL NOTES, LICENSES, OR REQUIREMENTS:**

**License:**

Land Surveyors must be licensed by the State of California as a Professional Land Surveyor (Business and Professional Code, Section 8725).

A valid California Class C driver's license is required at time of appointment or the ability to arrange transportation for field travel. Employees in this class may be required to use their own personal vehicle.

**Probationary Period:**

Incumbents appointed to permanent positions in this class shall serve a probationary period of twelve (12) months (Civil Service Rule 4.2.5).